

WHAT IS CLAIMED IS:

1 1. A method for controlling and managing a digital asset transmitted from a sending
2 computer to a receiving computer, the method comprising:
3 establishing a first secure communication pathway between the sending computer and an
4 intermediate server;
5 transmitting the digital asset from the sending computer to the intermediate server using
6 the first secure communication pathway;
7 establishing a second secure communication pathway between the receiving computer and
8 the intermediate server;
9 transmitting the digital asset from the intermediate server to the receiving computer using
10 the second secure communication pathway;
11 transmitting to the receiving computer rights defining how the digital asset may be
12 manipulated; and
13 storing the digital asset at the receiving computer in a way that permits manipulation of the
14 digital asset only in ways that are consistent with the transmitted rights.

1 2. The method of claim 1 wherein storing the digital asset at the receiving computer in a
2 way that permits manipulation of the digital asset only in ways that are consistent with the
3 transmitted rights comprises storing the digital asset in a way that only permits the digital asset to
4 be manipulated using an associated viewer.

1 3. The method of claim 1 wherein the rights defining how the digital asset may be
2 manipulated are defined in a rights document that is transmitted to the receiving computer.

1 4. The method of claim 3 wherein the rights document comprises an XML document.

1 5. The method of claim 3 wherein the rights document includes information identifying a
2 viewer to be used in accessing the digital asset.

1 6. The method of claim 3 wherein the rights document includes information about a party
2 who originated the digital asset.

1 7. The method of claim 3 wherein the rights document includes information about the
2 authority of the sending computer to transmit the digital asset.

1 8. The method of claim 3 wherein the rights document includes information about how to
2 purchase rights to use the digital asset.

1 9. The method of claim 3 wherein the rights document includes information about how to
2 purchase the digital asset.

1 10. The method of claim 3 wherein the rights document includes information about who is
2 authorized to modify the rights defined in the rights document.

1 11. The method of claim 10 wherein the rights document includes a description of aspects
2 of use of the digital asset to be tracked, the method further comprising tracking the aspects of use
3 of the digital asset described in the rights document.

1 12. The method of claim 3 wherein the rights document is transferred to the receiving
2 computer using the second secure communication pathway.

1 13. The method of claim 1 further comprising loading the rights into a secure database at
2 the receiving computer.

1 14. The method of claim 13 wherein:

2 storing the digital asset at the receiving computer in a way that permits only controlled
3 access to the digital asset comprises storing the digital asset in a way that only permits the digital
4 asset to be manipulated using an associated viewer; and

5 the associated viewer interacts with the secure database when accessing the digital asset to
6 ensure that the digital asset is manipulated consistently with the rights granted for manipulating
7 the digital asset.

1 15. The method of claim 1 wherein the rights transmitted to the receiving computer
2 control the ability of a user of the receiving computer to copy, view, print, execute, and modify the
3 digital asset.

1 16. The method of claim 1 further comprising modifying the rights defining how the
2 digital asset may be manipulated.

1 17. The method of claim 16 wherein modifying the rights defining how the digital asset
2 may be manipulated comprises transmitting to the receiving computer a replacement set of rights
3 defining how the digital asset may be manipulated.

1 18. The method of claim 16 wherein modifying the rights defining how the digital asset
2 may be manipulated comprises transmitting to the receiving computer only changes to the rights
3 defining how the digital asset may be manipulated.

1 19. The method of claim 16 further comprising transmitting to the sending computer a
2 notification that the rights have been modified.

1 20. The method of claim 16 wherein:

2 storing the digital asset at the receiving computer in a way that permits manipulation of the
3 digital asset only in ways that are consistent with the transmitted rights comprises storing the
4 digital asset in a way that only permits the digital asset to be manipulated using an associated
5 viewer,

6 the transmitted rights include information identifying a viewer to be used in manipulating
7 the digital asset, and

8 modifying the rights defining how the digital asset may be manipulated comprises
9 modifying the information identifying the viewer to be used in manipulating the digital asset to
10 change the viewer to be used in manipulating the digital asset.

1 21. The method of claim 16 further comprising implementing an asset recall function by
2 modifying the rights defining how the digital asset may be manipulated to prevent a user of the
3 receiving computer from manipulating the digital asset in any way.

1 22. The method of claim 21 wherein implementing the asset recall function further
2 comprises deleting the digital asset from the receiving computer.

1 23. The method of claim 1 further comprising maintaining a digital asset database at the
2 intermediate server, the digital asset database including information identifying the digital asset
3 and the rights transmitted to the receiving computer.

1 24. The method of claim 23 further comprising:

2 providing feedback from the receiving computer to the intermediate server about use of the
3 digital asset; and

4 updating the digital asset database in response to the feedback.

1 25. The method of claim 24 wherein the rights defining how the digital asset may be
2 manipulated indicate how feedback to the intermediate server is to be provided.

1 26. The method of claim 25 wherein the rights permit manipulation of the digital asset
2 only when there is a live connection with the intermediate server.

1 27. The method of claim 25 wherein the rights permit manipulation of the digital asset
2 only when the time since the last connection with the intermediate server is less than a
3 predetermined value.

1 28. The method of claim 24 further comprising permitting the sending computer to access
2 information in the digital asset database about the receiving computer's use of the digital asset.

1 29. The method of claim 28 wherein the sending computer uses the information in the
2 digital asset database about the receiving computer's use of the digital asset in determining when
3 to offer a modification of the digital asset.

1 30. The method of claim 28 wherein the sending computer uses the information in the
2 digital asset database about the receiving computer's use of the digital asset in collecting
3 demographic information about use and pricing of the digital asset.

1 31. The method of claim 24 wherein the receiving computer initiates feedback to the
2 intermediate server in response to a particular manipulation of the digital asset.

1 32. The method of claim 31 wherein the particular manipulation that initiates feedback is
2 identified by the rights defining how the digital asset may be manipulated.

1 33. The method of claim 24 wherein providing feedback from the receiving computer to
2 the intermediate server about use of the digital asset comprises tracking consumption of the digital
3 rights.

1 34. The method of claim 24 wherein providing feedback from the receiving computer to
2 the intermediate server about use of the digital asset comprises tracking individual manipulations
3 of the digital asset.

1 35. The method of claim 24 wherein providing feedback from the receiving computer to
2 the intermediate server about use of the digital asset comprises tracking characteristics of
3 individual portions of the digital asset.

1 36. The method of claim 1 wherein storing the digital asset at the receiving computer in a
2 way that permits manipulation of the digital asset only in ways that are consistent with the
3 transmitted rights comprises storing the digital asset in an encrypted format.

1 37. The method of claim 36 further comprising manipulating the digital asset, the
2 manipulating comprising decrypting the digital asset.

1 38. The method of claim 37 wherein decrypting the digital asset comprises retrieving a
2 key from the intermediate server and using the key in decrypting the digital asset.

1 39. The method of claim 37 wherein decrypting the digital asset comprises retrieving a
2 key from the receiving computer and using the key in decrypting the digital asset.

1 40. The method of claim 1 wherein transmitting rights to the receiving computer
2 comprises transmitting the rights before transmitting the digital asset.

1 41. The method of claim 1 wherein transmitting rights to the receiving computer
2 comprises transmitting the rights after transmitting the digital asset.

1 42. The method of claim 1 wherein establishing the first secure communication pathway
2 between the sending computer and the intermediate server comprises using public key encryption
3 to generate a session key that then is used to encrypt communications between the sending
4 computer and the intermediate server.

1 43. The method of claim 1 wherein establishing the second secure communication
2 pathway between the receiving computer and the intermediate server comprises using public key
3 encryption to generate a second session key that then is used to encrypt communications between
4 the receiving computer and the intermediate server.

1 44. The method of claim 1 wherein:
2 establishing the first secure communication pathway comprises using an encryption
3 technique appropriate for a physical location of the sending computer; and
4 establishing the second secure communication pathway comprises using an encryption
5 technique appropriate for a physical location of the receiving computer.

1 45. A method for controlling and managing a digital asset installed on a computer, the
2 method comprising:
3 installing on the computer rights defining how the digital asset may be manipulated, the
4 installing comprising loading the rights into a secure database at the computer; and
5 storing the digital asset in a way that permits manipulation of the digital asset only in ways
6 that are consistent with the installed rights.

1 46. The method of claim 45 wherein storing the digital asset in a way that permits only
2 controlled access to the digital asset comprises storing the digital asset in a way that only permits
3 the digital asset to be manipulated using an associated viewer.

1 47. The method of claim 45 wherein:

2 storing the digital asset at the receiving computer in a way that permits only controlled
3 access to the digital asset comprises storing the digital asset in a way that only permits the digital
4 asset to be manipulated using an associated viewer; and

5 the associated viewer interacts with the secure database when accessing the digital asset to
6 ensure that the digital asset is manipulated consistently with the rights granted for manipulating
7 the digital asset.

1 48. The method of claim 45 further comprising modifying the rights defining how the
2 digital asset may be manipulated.

1 49. The method of claim 48 wherein modifying the rights defining how the digital asset
2 may be manipulated comprises transmitting to the computer a replacement set of rights defining
3 how the digital asset may be manipulated.

1 50. The method of claim 48 wherein modifying the rights defining how the digital asset
2 may be manipulated comprises transmitting to the computer only changes to the rights defining
3 how the digital asset may be manipulated.

1 51. The method of claim 48 further comprising maintaining a digital asset database at a
2 remote server, the digital asset database including information identifying the digital asset and the
3 rights installed at the computer.

1 52. The method of claim 51 further comprising:

2 providing feedback from the computer to the remote server about use of the digital asset;

3 and

4 updating the digital asset database in response to the feedback.

1 53. The method of claim 52 wherein the rights defining how the digital asset may be
2 manipulated indicate how feedback to the remote server is to be provided.

1 54. The method of claim 53 wherein the rights permit manipulation of the digital asset
2 only when there is a live connection with the remote server.

1 55. The method of claim 53 wherein the rights permit manipulation of the digital asset
2 only when the time since the last connection with the remote server is less than a predetermined
3 value.

1 56. The method of claim 51 wherein the receiving computer initiates feedback to the
2 remote server in response to a particular manipulation of the digital asset.

1 57. The method of claim 56 wherein the particular manipulation that initiates feedback is
2 identified by the rights defining how the digital asset may be manipulated.

1 58. The method of claim 51 wherein providing feedback from the computer to the remote
2 server about use of the digital asset comprises tracking consumption of the digital rights.

1 59. The method of claim 51 wherein providing feedback from the computer to the remote
2 server about use of the digital asset comprises tracking individual manipulations of the digital
3 asset.

1 60. A method for controlling and managing a digital asset transmitted from a sender to
2 multiple recipients, the method comprising:

3 transmitting the digital asset from the sender to the recipients;

4 transmitting to the recipients rights defining how the digital asset may be manipulated;

5 storing the digital asset in storage locations associated with the recipients in a way that
6 permits manipulation of the digital asset only in ways that are consistent with the transmitted
7 rights; and

8 permitting certain ones of the recipients to modify the rights defining how the certain ones
9 of the recipients may manipulate the digital asset.

1 61. The method of claim 60 wherein the transmitted rights permit each recipient to
2 manipulate the digital asset in the same way.

1 62. The method of claim 60 wherein the transmitted rights indicate which recipients may
2 modify the rights.

1 63. The method of claim 62 wherein the transmitted rights indicate one or more classes of
2 recipients that may modify the rights.

1 64. The method of claim 60 further comprising permitting the certain ones of the
2 recipients to transmit the digital asset to other recipients and to control the rights transmitted to the
3 other recipients.

1 65. A method for controlling and managing a digital asset transmitted from a sender to a
2 recipient, the method comprising:

3 transmitting the digital asset from the sender to the recipient;

4 transmitting to the recipient a first set of rights defining how the digital asset may be
5 manipulated;

6 storing the digital asset in a storage location associated with the recipient in a way that
7 permits manipulation of the digital asset only in ways that are consistent with the transmitted
8 rights; and

9 permitting the recipient to transmit the digital asset to another recipient along with a
10 second set of rights defining how the digital asset may be manipulated by the other recipient.

1 66. The method of claim 65 wherein the second set of rights is more restrictive than the
2 first set of rights.

1 67. A system for dynamically managing digital rights of digital content, comprising:
2 a digital content package comprising digital content data and a digital rights manager
3 wherein the digital content data includes encrypted data; and
4 a digital rights database operable to store digital rights relating to the digital content data,
5 wherein the digital rights manager includes code that is operable to:
6 determine whether digital rights to manipulate the digital content data exist in the
7 digital rights database; and
8 decrypt the encrypted data of the digital content data to generate decrypted digital
9 content that can be manipulated.

1 68. The system of claim 67 further comprising:
2 a computer device operable to manipulate the decrypted digital content; and
3 a global rights unit operable to manage the digital rights database and communicate with
4 the computer device wherein the global rights unit is located remote from the computer device.

1 69. The system of claim 68 wherein the global rights unit includes a global clock wherein
2 the computer device includes a local clock, and wherein the global rights unit is operable to
3 synchronize the local clock with the global clock when a communication link between the
4 computer device and the global rights unit is available.

1 70. The system of claim 67 wherein the digital rights manager is operable to decrypt the
2 encrypted data of the digital content only if the digital rights to manipulate the digital content data
3 exist in the digital rights database.

1 71. The system of claim 67 further comprising a computer device wherein the decrypted
2 digital content includes an executable file that is operable to run on the computer device.

1 72. The system of claim 67 wherein the digital content package further comprises a viewer
2 module including viewer code operable to facilitate manipulation of the decrypted content.

1 73. The system of claim 72 further comprising a computer device wherein the viewer code
2 is operable to allow an end-user to manipulate the decrypted digital content on the computer
3 device.

1 74. The system of claim 68 wherein the digital rights database comprises:
2 a local digital rights database file stored at a computer device comprising individual digital
3 rights information related to an individual digital content package; and
4 a global digital rights database located at the global rights unit comprising digital rights
5 information related to a plurality of digital content packages.

1 75. The system of claim 74 wherein the local digital rights database and the global digital
2 rights database are operable to be harmonized with each other using a communication pathway.

1 76. The system of claim 74 wherein the local digital rights database is operable to modify
2 data in the global digital rights database using a communication pathway connecting the local
3 digital rights database with the global digital rights database.

1 77. The system of claim 74 wherein the global digital rights database is operable to
2 modify data in the local digital rights database using a communication pathway connecting the
3 local digital rights database with the global digital rights database.

1 78. The system of claim 67 wherein the digital rights to manipulate the digital content data
2 are automatically modified each time the digital content data is manipulated.

1 79. The system of claim 67 wherein the digital rights to manipulate the digital content data
2 are automatically modified according to time-based criteria.

1 80. The system of claim 68 further comprising a tracking manager module operable to
2 gather tracking information concerning the digital content data from the digital rights database.

1 81. The system of claim 80 wherein the tracking manager module is further operable to
2 manipulate the tracking information concerning the digital content data.

1 82. The system of claim 80 wherein each of a plurality of copies of the digital content data
2 comprises a unique identifier operable to distinguish the plurality of copies of the digital content
3 data from each other, and wherein the tracking information concerning the digital content data
4 includes routing information of individual copies of the digital content data, identities of computer
5 devices at which the individual copies of the digital content data reside, and the number of copies
6 of the digital content data in existence.

1 83. A method of providing secure collaboration among several collaborators, the
2 method comprising:

3 providing a digital asset to a collaborator in an encrypted format;

4 permitting the collaborator to edit the digital asset using an authorized viewer program;

5 and

6 saving changes made by the collaborator in an encrypted format by creating a collaboration
7 file by encrypting a change document representing the changes made by the collaborator and the
8 original encrypted digital asset.

1 84. The method of claim 83 further comprising:

2 providing the collaboration file to another collaborator;

3 permitting the other collaborator to edit the digital asset using an authorized viewer
4 program and the collaboration file; and

5 saving changes made by the other collaborator in an encrypted format by creating a second
6 collaboration file by encrypting a second change document representing the changes made by the
7 other collaborator and the collaboration file such that a second encryption layer is added by the
8 other collaborator.

1 85. The method of claim 84 further comprising presenting to the other collaborator the
2 digital asset and the changes made by the first collaborator in a way that distinguishes the original
3 digital asset from the changes made by the first collaborator.

1 86. The method of claim 85 wherein the digital asset is presented using a font different
2 from a font used to present the changes made by the first collaborator.

1 87. The method of claim 85 wherein the digital asset is presented using a color different
2 from a color used to present the changes made by the first collaborator.

1 88. The method of claim 84 further comprising giving different collaborators different
2 rights with respect to editing the digital asset.

1 89. The method of claim 84 further comprising giving different collaborators different
2 rights with respect to viewing changes made by other collaborators.

- 1 90. The method of claim 83 further comprising feeding the changes of the change
- 2 document to an entity that provided the digital asset to the collaborator.